Impact of Cardiology Telehealth Utilization for Improving Timing of Diagnosis, Compliance, Treatment and Patient Satisfaction



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Background

Cardiovascular disease remains the leading cause of death in the United States. Every day, thousands of patients present to either their primary care (PCP) or emergency room (ER) with symptoms suggestive of heart disease. Once evaluated and deemed stable, these patients are referred for outpatient cardiology consultation. Delays in appointment availability for an in-person cardiology consultation can result in events leading to increased morbidity and mortality. Utilization of telehealth in cardiology can expedite the patient evaluation and treatment potentially improving patient outcomes and satisfaction.

Purpose

To study if nurse practitioner led telehealth consultation in cardiology would:

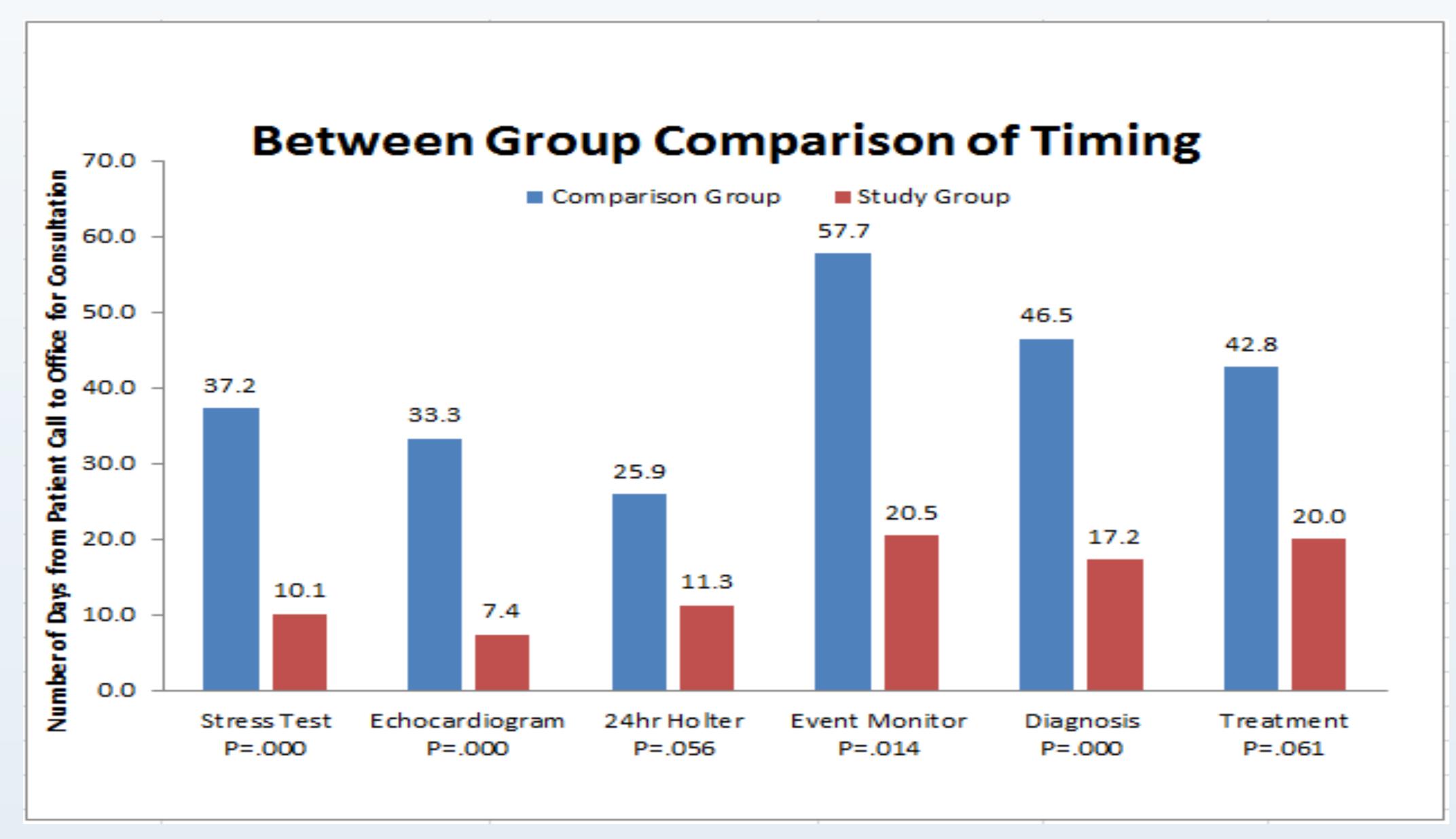
- Reduce wait time for diagnostic testing
- Reduce return visit to ER or PCP
- Improve timing of diagnosis
- Reduce no-show rates
- Result in high patient satisfaction



Sample

- N=64 (Comparison=41, Study=23)
- Male (N=19), Female (N=45)
- Referred from ER or PCP for cardiac related symptoms
- Ages ranged from 25-75 years
- Study group must have Bon Secours EMR

Results



Methods

The intervention consisted of telehealth using FaceTime or GoToMeeting through the patients smart phone or computer.

- Convenience sample to comparison or study group.
- Study group had telehealth consult within 72 hours of calling office. Comparison group seen at first onsite consultation.
- Study group had diagnostic testing ordered and often completed prior to onsite consultation.
 Comparison group waited until onsite consultation to have orders placed.
- Demographic survey and consent completed upon first encounter with nurse practitioner.
- Satisfaction survey mailed to both groups. Study group survey focused on telehealth experience.



Qualitative Data on Satisfaction Experimental Group

- "Telehealth visit was convenient, time-efficient and still permitted a connection."
- "Maybe one of the best experiences I have concerning doctors appointments or test. There was no rush and I felt this saved time."
- "Personal, not time limited. I was in my comfort zone."
- "I think it was wonderful and very easy to use."
- "Awesome approach to health care. I liked the privacy, timeliness and focus."
- "Telehealth saved a lot of time."
- "Telehealth will work fine though it will require provider behaviors that may not be trained adequately. My provider had good interpersonal skill and was agile with the technology. If a provider was deficient in those domains, telehealth could be less satisfying."
- "I like that I didn't have to make a office visit and was more personal."
- "Overall it was great and would use this all the time."

Conclusion

- Exposure to telehealth improved outcomes by reducing the wait times for diagnostic testing, diagnosis and treatment.
- Telehealth did not reduce the no-show or return to referring provider rates.
- Patients were highly satisfied with nurse practitioner led cardiology care.

Implications

- Telehealth improves access to care.
- Convenience of patient assessment from their location.
- Affordable platforms for telehealth start up for private practice.
- Cost savings with bundle payment patients potentially reducing ER evaluation or admission.